♀, wing 156 mm, weight 130 g; ovary inactive, but oviduct enlarged; stomach-contents fruits.

♀, wing 157 mm, weight 130 g; follicles 1 mm in diameter, oviduct enlarged; stomach-contents fruits and pieces of Hymenoptera.

♂, wing 156 mm, weight 130 g; testes 4 × 3 mm; 2nd outer primary and 1st and 5th left tail-feathers (but only 6th right tail-feather) moulting; stomach-contents fruits and some flying ants.

♂, wing 167 mm, weight 145 g; testes 5 × 3 mm; 2nd outer primary, 3rd tail-feather, wing-coverts and body plumage moulting; stomach-contents some fruits and many remains of Orthoptera and Hymenoptera.

The females can be immediately distinguished by the dark, somewhat bluish and slightly glossy grey colour of the head, this colour extending to the upper back and upper chest. The males show no such contrast, the colour of the head, back and chest being the same. This sexual colour-difference is similar to that in other species of the genus *Onychognathus*. Probably Mackworth-Praed & Grant used mis-sexed specimens for their description. It may be added that the eye in this species is dark red.

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[The cost of the plate in the above paper was borne by the Laboratoire d'Ornithologie —Ed.]

Geographical variation and distribution in the swift genus *Schoutedenapus*

by R. K. Brooke

Received 4th December, 1970

Much of the work on which this paper is based was done while holding a Frank M. Chapman memorial grant from the American Museum of Natural History. I am obliged to the curators of museums listed in Brooke (1969a) for facilities for study. I am also obliged to Mr. P. L. Britton for a list of swift specimens in the National Museum of Kenya in Nairobi.] As in previous papers delta-length means the distance between the tips of the fourth and fifth rectrices when the tail is held closed.

De Roo (1968) very correctly erected the genus *Schoutedenapus* with type species *myoptilus* (Salvadori) 1888: Let Marefia in Ethiopia, but sidestepped the question of whether to include any other species in it. Having examined the three known specimens of *S. schoutedeni* (Prigogine) 1960: Butokolo in

Congo Kinshasa, all of which are in the Koninklijk Museum voor Midden Afrika in Tervuren, I am convinced that it is a good species and not some sort of phase of *S. m. chapini* (Prigogine) as suggested by Hall & Moreau (1962) and as assumed by White (1965). In this view I am supported by Traylor (*Auk* 1966: 492), Chapin in Prigogine (1960) and Dr. C. Vaurie (among Chapin's notes preserved in the A.M.N.H.). But it is not by an appeal to authority but by a consideration of the material that I am convinced that *S. schoutedeni* is a good species and not a peculiar juvenile of *S. m. chapini* with which it is apparently sympatric. The throat is not pale; there are no pale patches above the bill and before the eyes; it is darker above, particularly on the secondaries; the outermost rectrices are not particularly emarginate—more so than juvenile and much less so than subadult and adult *S. m. chapini*; wing and delta-lengths are shorter. It thus differs from *chapini* of which I have examined 69 specimens. A number of sympatric swifts in *Apus*, *Chaetura*, *Collocalia* and *Cypseloides* differ in a few constant small characters in different parts of the body and are universally accepted as good species. The same position holds in *Schoutedenapus*.

Prigogine (1960) in his original description referred only to the type and one paratype. When I was at Tervuren Dr. A. De Roo kindly pointed out to me another specimen, i.e. the third known, taken by Prigogine at Mubandakila in eastern Congo Kinshasa on 12th November, 1956: it is a male in normal plumage as are the two birds taken at Butokolo (the type locality) on 28th October, 1959. Its wing and delta lengths are 131 and 9 mm respectively whereas those of the Butokolo birds are 123 and 124 and 5 and 5.5 mm. As shown under *S. myoptilus* below the average measurements for adult male *chapini* are 133.1 and 10.98 mm.

Schoutedenapus myoptilus (not *S. myioptilus* as in White [1965]: myoptilus means mouse-feathered and myioptilus means fly-feathered in Greek, an inappropriate emendation which C. M. N. White (*in litt.*) tells me is a printing error) is widely distributed in the mountains of eastern Africa from Ethiopia to Rhodesia with an isolated race on Fernando Po. The nominate race, which is the palest, is not often collected, not because it is truly scarce as its vernacular name suggests but because it is difficult to shoot swifts of any species, and this is accentuated when they frequent precipices as this species does and the shot birds fall half a mile below one's feet. There is material of the nominate race which I have examined unless authority is cited from: *Ethiopia* Let Marefia (White 1965); *Kenya* 15 miles south of Isiolo, Kapenguria, Mt. Kenya, Naivasha (P. L. Britton *in litt.*), Nanyuki; *Uganda* Mt. Moroto; *Tanzania* Kilimanjaro, Ngara Ohattoni southwest of Arusha (Kittenberger 1959), sight records Oldeani (Dillingham 1958); *Malawi* Mt. Mlanje (Benson 1952); *Zambia* sight records nyika (Keith & Vernon 1969); *Rhodesia* Chimanimani Mountains, Mt. Inyangani.

It obviously occurs in Mozambique since Mt. Mlanje and the Chimanimani Mountains straddle its borders with Malawi and Rhodesia. M. P. S. Irwin (pers. comm.) has seen it on the top of Gorongosa Mt. and also at Stapleford in Rhodesia. Breeding sites are only known in Rhodesia (Brooke in press for *Ostrich*).

The range and average wing- and delta-lengths are respectively adult ♂♂ wing-length 129–141 av. (10) 133.6, delta-length 12.0–17.5 av. (10) 14.35; adult ♀♀ wing-length 130–139 av. (7) 134.3, delta-length 13–18 av. (7) 15.50 mm. There appears to be no significant sexual difference in adult measurements, and the overall ranges and averages are adult wing-length 129–141 av.

(17) 133.9, delta-length 12–18 av. (17) 14.82 mm. Three juveniles (two males and an unsexed bird) have wings ranging 128–131 and deltas from 6.5–8.0 mm. The short delta-length is a principal character by which juveniles may be distinguished. The other two are the unemarginate outer rectrices and the pale tips to the three outermost primaries when fresh (Brooke 1969b).

Few weights for this race are available: two adult males weighed 28 and 29.5 g, an adult female (all from Uganda) weighed 30 g and two juvenile males from Kenya weighed 25 and 25.5 g. average (5) 27.60 g.

S. m. achimodzi (Vincent) 1933: Mt. Mlanje in Malawi, which I have not seen, is widely said to be a synonym of nominate *myoptilus*. I have no reason to doubt the prevailing view despite Benson's (1952) caution, since Rhodesian and Kenyan birds are indistinguishable.

S. m. chapini (Prigogine) 1957: Kamituga in Congo Kinshasa, of the mountains of eastern Congo Kinshasa to western Kenya, is darker and has a shorter delta-length. This race seems more willing to feed low over the ground and more specimens have been taken (Prigogine 1966). There is material which I have examined unless an authority is cited from: *Congo Kinshasa:* Butokolo, Byonga, Idjwi (Prigogine 1967), Isopo, Mt. Kabobo, Kakanda, Kama, Kamituga, Kitutu, Kivu, Kokolokelwa, Luiko, Mbezo, Tubangwa; *Uganda:* Mt. Spelce, Stanley Plateau (both in the Ruwenzori Mountains) (both P. L. Britton *in litt.* on material in the National Museum in Nairobi); *Kenya:* Kakamega.

There is an Angolan record of an immature male taken on Mt. Moco on 27th February with wing-length 130 and delta-length 8 mm. Traylor (1960) thought that it was best placed with *chapini*. Upon examination it shows some approach to the darker colour of *S. m. poensis* and shares with it pale sides to the frons. Its measurements fit it for either race. It may represent a fourth race or a series may show that it is inseparable from *poensis*. A similar relation between Fernando Po and Mt. Moco holds in *Apus sladeniae* (Ogilvie-Grant) (Brooke 1970).

The range and average wing and delta-lengths are respectively adult ♂♂ wing-length 129–137 av. (19) 133.1, delta-length 8–13 av. (21) 10.98; adult ♀♀ wing-length 128–140 av. (18) 133.7, delta-length 9.0–12.5 av. (18) 10.36; immature ♂♂ wing-length 128–140 av. (6) 132.7, delta-length 8.0–10.5 av. (5) 9.70; immature ♀♀ wing-length 126–135 av. (9) 131.1, delta-length 9–12 av. (10) 9.75; juvenile ♂♂ wing-length 127–132 av. (5) 129.2, delta-length 4.5–6.5 av. (5) 5.40 mm. Two female juveniles have wings of 133 and 134 and deltas of 6 and 7 mm. It appears that there is no sexual dimorphism in these measurements but that the delta-length in juveniles is significantly shorter than in adult and immature birds. Immature birds have a less emarginate outer rectrix than do adults. At the end of the fourth rectrix the width of the fifth rectrix varies according to age class: in adults it is 1–2 mm, in immatures it is 2.5–3.0 mm and it is 3 mm in juveniles. This is another way of expressing the increasing emargination of the outermost rectrix with age. The overall ranges and averages are wing-length 126–140 av. (69) 130.9, non-juvenile delta-length 8–13 av. (64) 9.86, juvenile delta-length 4.5–7.0 av. (7) 5.71 mm.

An adult female from Kenya weighed 22 g, and this is the only weight known for this race.

S. m. poensis (Alexander) 1903: Fernando Po is the darkest race in general colour but has pale sides to the frons and a delta-length nearly equal to that of the nominate race. The throat is relatively less pale and more ill defined than in the preceding two races. It is known only from Fernando Po and

perhaps Mt. Moco in Angola (see above). Omitting the Mt. Moco bird the wing- and delta-lengths can be summarized on the basis discussed under *chapini* as wing-length 126–133 av. (6) 130.2, delta-length 9.0–15.5 av. (5) 12.70 mm. A male juvenile has a delta-length of 6 mm. No weights are known.

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Notes on a further Pintail x Teal Hybrid

by James M. Harrison and Jeffery G. Harrison

Received 2nd December, 1970

By the courtesy of Mr. C. W. Benson we were invited to examine and comment on a hybrid between a Pintail *Anas acuta* Linnaeus and European Green-winged Teal *Anas crecca* Linnaeus. The specimen is in the University Museum of Zoology, Cambridge, and its particulars are: "No.12/Ana/3/a/11. Collection A. & E. Newton. Found in Leadenhall Market by Johnson, April 1862. Stuffed by Leadbeater". It is illustrated herein as Plate I. It was briefly recorded in *Proc. Zool. Soc. Lond.*, 1862: 84, but was not described.

Leadenhall Market is in London, and was well known in the last century as a place for the sale of wildfowl. So it may be reasonably presumed that this specimen was shot in the wild, somewhere in south-eastern England. It is the first of four such hybrids known, from plumage all males. The second was shot in the Nile Delta on 26th January, 1923, and was illustrated in *Nicoll's Birds of Egypt* (Meinertzhagen, 1930, Pl. XX), this plate being here reproduced as Plate 2. The third was shot in Kashmir on 29th December, 1937, and was described and illustrated by ourselves (Harrison & Harrison, 1969). Sage (1960) discusses and illustrates two wild-shot hybrids, from plumage also males. One of these constitutes the fourth record, and was shot in Holland, but with no exact date. The other was between a Pintail and an American Green-winged Teal *A. crecca carolinensis* Gmelin, shot on 17th December, 1952 in Imperial County, California. U.S.A. These two specimens